

APPARATUS AND METHOD FOR SIMULTANEOUSLY CONDUCTING
MULTIPLE CHEMICAL REACTIONS

ABSTRACT OF THE INVENTION

A method, apparatus and kit forms a plurality of closed reaction chambers to
5 simultaneously conduct multiple chemical reactions. The apparatus includes a plate
of wells and an array of sets of bound chemical reactants. A well has a deformable
closed end and an open end opposite the closed end. When assembled together, the
array covers open ends of the wells in the plate to form a reaction assembly having a
plurality of closed cells that is one or more of gas, liquid and/or fluid tight. The
10 deformable closed end of the well is flexible such that a test sample is displaced
toward a set of chemical reactants in a closed cell for mixing. The array may include
spatially arranged prongs distally extending from a support with the sets of chemical
reactants bound to distal ends of prongs.